

Exercise - I (Conceptual Questions)

Build Up Your Understanding

ROOT, STEM

1. Roots associated with nitrogen fixing bacteria are :-
 (1) Fusiform roots (2) Napiform roots
 (3) Nodulated roots (4) Conical roots

BMP002

2. Shoot/Stem develops from :-
 (1) Plumule (2) Radicle
 (3) Both (1) & (2) (4) Endosperm

BMP005

3. Which is an example of offset?
 (1) *Cynodon dactylon* (2) *Eichhornia*
 (3) *Fragaria* (4) *Mentha*

BMP006

4. Rhizome of ginger is a modification of stem because :-
 (1) It bears Adventitious roots
 (2) It bears nodes and internodes
 (3) It is underground
 (4) It stores food material

BMP007

5. Phylloclade is found in :-
 (1) *Opuntia* (2) Cactus
 (3) *Acacia* (4) Both (1) & (2)

BMP008

6. Nodulated roots occurs in:-
 (1) *Liliaceae* (2) *Solanaceae*
 (3) *Malvaceae* (4) *Fabaceae*

BMP009

7. Thorns and spines are :-
 (1) Defensive organs
 (2) Respiratory organs
 (3) Both (1) & (2)
 (4) Storage organs

BMP010

8. In onion the reduced disc like underground stem is :-
 (1) Root (2) Rhizome
 (3) Bulb (4) Tuber

BMP011

9. Stem modified into leaf like structure and leaves are changed into spines in :-
 (1) Phyllode (2) Tuber
 (3) Phylloclade (4) All the above

BMP012

10. What is the eye of potato ?
 (1) Axillary bud
 (2) Accessory bud
 (3) Adventitious bud
 (4) Apical bud

BMP020

11. In *Ruscus*, the modification is :-
 (1) Phyllode (2) Cladode
 (3) Offset (4) Sucker

BMP021

12. In turmeric, stem is a :-
 (1) Tuber (2) Bulb
 (3) Rhizome (4) Corm

BMP022

13. Edible part of potato is:-
 (1) Inflorescence (2) Leaves
 (3) Roots (4) Stem

BMP060

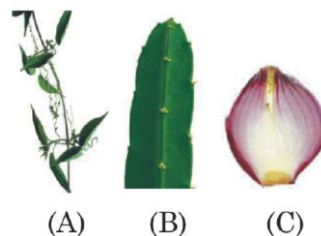
LEAF, INFLORESCENCE

14. Which is not a stem modification :-
 (1) Rhizome of ginger
 (2) Corm of *Colocasia*
 (3) Pitcher of *Nepenthes*
 (4) Tuber of potato

BMP016

15. A modification of petiole is :-
 (1) Phyllode (2) Phylloclade
 (3) Cladode (4) Corm
BMP017
16. Catkin inflorescence is found in :-
 (1) Wheat (2) Oat
 (3) Mulberry (4) Fig
BMP023
17. Spathe is present in inflorescence of :-
 (1) Maize (2) Rice
 (3) Marigold (4) Sunflower
BMP024
18. Parallel venation occurs in :-
 (1) Liliaceae (2) Solanaceae
 (3) Brassicaceae (4) Fabaceae
BMP090
19. Disc florets are
 (1) Bisexual
 (2) in centre
 (3) small flower in Asteraceae
 (4) All of the above
BMP323
20. The most advanced type of inflorescence is:
 (1) Spike of spikelets (2) Capitulum
 (3) Verticillaster (4) Catkin
BMP325
21. Modification of petiole in to leaf-like structure is called :-
 (1) Cladode (2) Phylloclade
 (3) Phyllode (4) Pistillode
BMP326
22. How many plants in the list given below have opposite phyllotaxy ?
 China rose, *Ocimum*, Sunflower, Mustard, *Alstonia*, Guava, *Calotropis* and *Nerium*.
 (1) Four (2) Three
 (3) Five (4) Two
BMP327

23. Identify the type of leaf modification in the given diagram (A-C) and choose correct option in which modified structure is correctly identified with their related function :-



- (1) A-spines (Support), B-tendrils (Protection), C- fleshy leaves (Storage)
 (2) A- tendrils (Support), B- spine (Protection), C- fleshy leaves (Storage)
 (3) A- tendrils (Protection), B- spine (Support), C-fleshy leaves (Storage)
 (4) A- spine (Protection), B-tendrils (Support), C-fleshy leaves (Storage)

BMP328

24. Match the column-I with column-II and choose correct option :-

Column-I		Column-II	
(a)	Alternate phyllotaxy	(i)	<i>Alstonia</i>
(b)	Opposite phyllotaxy	(ii)	Mustard
(c)	Whorled phyllotaxy	(iii)	Guava

- (1) a-ii, b-iii, c-i (2) a-iii, b-i, c-ii
 (3) a-i, b-ii, c-iii (4) a-ii, b-i, c-iii

BMP329

25. Which one of the following statement is incorrect?
 (1) Pulvinus leaf base is found in some legume plants.
 (2) Whorled phyllotaxy is present in *Alstonia*
 (3) Thorn in *citrus* are modified leaves.
 (4) Pinnately compound leaf is found in Neem.

BMP330

26. Opposite simple leaves with reticulate venation are present in :-

- (1) Neem (2) *Calotropis*
(3) Sunflower (4) *Alstonia*

BMP331

27. Select correct option in which compound leaf is found :-

- (1) Neem (2) Mango
(3) Peepal (4) Radish

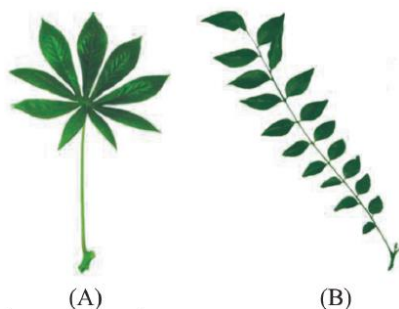
BMP332

28. In which of following type of phyllotaxy a pair of leaves arise at each node?

- (1) Guava (2) Mustard
(3) *Alstonia* (4) Sunflower

BMP333

29. The two sketches A and B given below represents two different types of leaves. Select the option in which both are correctly identified :-



	A	B
(1)	Simple leaf	Compound leaf
(2)	Compound leaf	Simple leaf
(3)	Pinnately compound leaf	Palmately compound leaf
(4)	Palmately compound leaf	Pinnately compound leaf

BMP334

30. The green and expanded part of the leaf with vein and veinlets is known as :-

- (1) Leaf base (2) Petiole
(3) Lamina (4) Stipule

BMP335

31. The pattern of arrangement of leaves on the stem or branch is known as :-

- (1) Venation (2) Aestivation
(3) Phyllotaxy (4) Inflorescence

BMP336

32. Function of petiole :-

- (1) Hold the leaf blade
(2) Flutter the leaf blade in wind
(3) Bringing fresh air to leaf surface
(4) All of the above

BMP337

33. In *Nepenthes* (pitcher plant), the pitcher is formed due to modification of :-

- (1) Leaf petiole (2) Leaf lamina
(3) Tendril (4) Leaflet

BMP338

34. Pulvinus is found in :-

- (1) Grasses
(2) Some crucifers
(3) Some cucurbits
(4) Some leguminous plants

BMP339

35. Identify the order where plants show alternate, opposite and whorled phyllotaxy.

- (1) China rose, *Calotropis* and *Alstonia*
(2) China rose, *Nerium* and *Calotropis*
(3) *Nerium*, *Calotropis* and China rose
(4) *Calotropis*, China rose and *Nerium*

BMP340

36. Sheathing leaf base is found in :-

- (1) Leguminous plants
(2) Monocot plants
(3) Gymnosperm plants
(4) Pteridophytes

BMP341

37. Winged petiole is commonly found in :-
 (1) Leguminous plants (2) Crucifer plants
 (3) Monocots (4) Citrus

BMP342

38.



Choose correct example for above given figure.

- (1) China rose, mustard
 (2) *Gauva*, *calotropis*
 (3) *Alstonia*
 (4) Neem, Mango

BMP343

39. Find the incorrect statement.
 (1) In pinnately compound leaf rachis is present.
 (2) Rachis, actually represents the mid-rib of the leaf in a pinnately compound leaf.
 (3) In palmately compound leaf rachis is present.
 (4) Silk cotton has got palmately compound leaf.

BMP344

40. Swollen leaf base is called _____.

- (1) Pulvinus
 (2) Sheathing leaf base
 (3) Stipule
 (4) Pulvinate

BMP345

41. In ____A____ type of inflorescence, main axis terminates in a flower, hence is limited in growth and flowers are borne in ____B____ succession. Choose the correct option to replace A and B.

- (1) 1 (2) 2 (3) 3 (4) 4

BMP346

42. When a shoot tip transforms into a flower ?
 (1) Pollination can not be normal
 (2) It is always solitary
 (3) Flower opening is centripetal
 (4) Growth is indefinite

BMP347

43. In Cymose inflorescence the main axis :-
 (1) has unlimited growth
 (2) bear a solitary flower
 (3) has unlimited growth but lateral branches end in flower
 (4) terminates in a flower

BMP348

44. **Assertion** : In Racemose inflorescence flowers are arranged in acropetal succession.

Reason : In this type of inflorescence shoot apex transforms into flower.

- (1) Both **A** and **R** true but **R** is not correct explanation of **A**.
 (2) **A** is true but **R** is false.
 (3) Both **A** and **R** are true and **R** correct explanation of **A**.
 (4) **A** is false but **R** is true.

BMP349

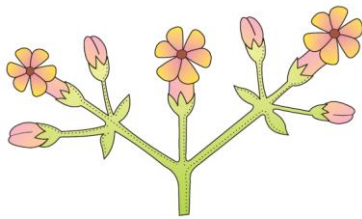
45. Identify this inflorescence :-



- (1) Cymose (2) Cyathium
 (3) Racemose (4) Hypanthodium

BMP350

46. Which of the following is correct for the type of inflorescence given below ?



- (1) The main axis terminates in a flower.
- (2) The main axis is of limited growth.
- (3) The flowers are borne in a basipetal order.
- (4) All are correct

BMP351

47. The arrangement of veins & the veinlets in the lamina of leaf is termed as :-

- (1) Phyllotaxy
- (2) Placentation
- (3) Venation
- (4) Vernation

BMP352

FLOWER

48. The floral leaves arise from :-

- (1) Mother axis
- (2) Thalamus
- (3) Root
- (4) Pedicel

BMP019

49. If the filaments are fused in a single group the condition is :-

- (1) Monadelphous
- (2) Polyadelphous
- (3) Both (1) & (2)
- (4) Diadelphous

BMP034

50. Pappus is modification of :-

- (1) Bracts
- (2) Corolla
- (3) Calyx
- (4) All

BMP035

51. Most important characteristic of angiosperm is :-

- (1) Flowers
- (2) Roots
- (3) Seed
- (4) Stem

BMP036

52. Adhesion in a flower is :-

- (1) Union of dissimilar parts
- (2) Union of similar parts
- (3) Both (1) and (2)
- (4) Fusion of carpels

BMP037

53. The fourth whorl of flower is of :-

- (1) Petals
- (2) Stamens
- (3) Carpels
- (4) Sepals

BMP038

54. The first whorl of flower is of :-

- (1) Petals
- (2) Stamens
- (3) Carpels
- (4) Sepals

BMP043

55. Epigynous flowers are present in :-

- (1) Mustard
- (2) Brinjal
- (3) China rose
- (4) Cucumber

BMP050

56. In *Dianthus*, placentation is :-

- (1) Basal
- (2) Free central
- (3) Axile
- (4) Marginal

BMP051

57. Ovary is half-inferior in the flower of :-

- (1) Apple
- (2) Guava
- (3) Peach
- (4) Garlic

BMP052

58. The term "Keel" is used for special type of:-

- (1) Sepals
- (2) Petals
- (3) Stamens
- (4) Carpels

BMP053

59. Polyadelphous stamens are found in :-

- (1) Cotton
- (2) China rose
- (3) Pea
- (4) Lemon

BMP054

60. Zygomorphic flowers are found in:-

- (1) Solanaceae
- (2) Malvaceae
- (3) Fabaceae
- (4) Liliaceae

BMP056

61. Which type of Placentation is found in mustard :-

- (1) Parietal (2) Axile
(3) Basal (4) Marginal

BMP059

62. Which of the following statements is correct:-

- (1) Flower is a modified root
(2) Flower is a modified shoot
(3) Flower is a modified leaf
(4) Flower is a modified inflorescence

BMP084

FRUIT & SEED

63. In which of the following fruits the edible part is the aril ?

- (1) Custard apple (2) Pomegranate
(3) Orange (4) Litchi

BMP109

64. Cotyledons and testa respectively are edible parts in :-

- (1) Cashew nut and litchi
(2) Groundnut and pomegranate
(3) Walnut and tamarind
(4) French bean and coconut

BMP117

65. A fruit developed from hypanthodium inflorescence is called :-

- (1) Caryopsis (2) Hesperidium
(3) Sorosis (4) Syconus

BMP118

66. Caryopsis fruit is found in :-

- (1) Wheat (2) Pea
(3) Gram (4) Lentil

BMP033

67. Siliqua is the fruit of :-

- (1) Cruciferae (2) Fabaceae
(3) Liliaceae (3) Solanaceae

BMP305

68. Fruit of brinjal is :-

- (1) Berry (2) Hesperidium
(3) Drupe (4) Pome

BMP039

69. Which of the following is false fruit ?

- (1) Pome (2) Pepo
(3) Hesperidium (4) Drupe

BMP040

70. A true fruit develops from :-

- (1) Ovary (2) Thalamus
(3) Petals (4) Receptacle

BMP041

71. Fruit of 'Ground nut' is :-

- (1) Nut (2) Legume
(3) Lomentum (4) Capsule

BMP042

72. Geocarpic fruit is :-

- (1) Carrot (2) Radish
(3) Ground nut (4) Turnip

BMP045

73. Edible part in pomegranate is :-

- (1) Testa (2) Epicarp
(3) Endocarp (4) Epidermis

BMP047

74. Edible Juicy hair-like structures are found in:

- (1) Apple (2) Pear
(3) Lemon (4) Strawberry

BMP306

75. Which of the following represents the edible part of the fruit of Litchi:-

- (1) Endocarp (2) Pericarp
(3) Juicy aril (4) Mesocarp

BMP049

76. What is the major edible part of brinjal :-

- (1) Calyx (2) Thalamus
(3) Placenta (4) Style

BMP078

77. Fruit legume is characteristic feature of :-

- (1) Solanaceae (2) Liliaceae
(3) Fabaceae (4) Brassicaceae

BMP088

78. Grain of Maize is :-

- (1) Seed
(2) Fruit
(3) Neither seed nor fruit
(4) Bud of flower

BMP102

79. The fruit type cypsela is found in :-

- (1) Poaceae (2) Asteracea
(3) Malvaceae (4) Fabaceae

BMP317

BRASSICACEAE, MALVACEAE, FABACEAE

80. Tetradyanamous condition of stamens occur in members of :-

- (1) Cruciferae (2) Malvaceae
(3) Solanaceae (4) Lilliacae

BMP046

81. Point out the correct example of Cruciferae:-

- (1) Mustard (2) Pea
(3) Onion (4) Brinjal

BMP058

82. Ground nut belongs to family :-

- (1) Fabaceae (2) Brassicaceae
(3) Liliaceae (4) Solanaceae

BMP061

83. Bicarpellary ovary with parietal placentation and false septum is found in:-

- (1) Cruciferae
(2) Leguminosae
(3) Solanaceae
(4) Liliaceae

BMP062

84. Diadelphous condition is common in :-

- (1) Solanaceae (2) Cruciferae
(3) Liliaceae (4) Fabaceae

BMP080

85. Pulses yielding main family of plants is :-

- (1) Solanaceae (2) Brassicaceae
(3) Liliaceae (4) Fabaceae

BMP082

86. The floral formula of pea is represented by:-

(1) $\text{Br}\% \begin{matrix} \nearrow \\ \text{♀} \end{matrix} K_{(5)} C_{1+2+(2)} A_{(9)+1} \underline{G}_1$

(2) $\text{Br} \oplus \begin{matrix} \nearrow \\ \text{♀} \end{matrix} K_{(5)} C_5 A_{1+(9)} \underline{G}_1$

(3) $\text{Br}\% \begin{matrix} \nearrow \\ \text{♀} \end{matrix} K_{(5)} C_{1+2+(2)} A_{9+1} \underline{G}_1$

(4) $\text{Ebr or Br \% } K_{(5)} C_{1+2+(2)} A_{10} \underline{G}_1$

BMP083

87. Bean and gram belong to the family :-

- (1) Liliaceae (2) Fabaceae
(3) Solanaceae (4) Cruciferae

BMP087

88. Tetradyanamous stamens and cruciform corolla are characteristic features of :-

- (1) *Solanum tuberosum* (Potato)
(2) *Solanum nigrum* (Makoi)
(3) *Allium cepa* (Onion)
(4) *Brassica campestris* (Mustard)

BMP100

89. Fibre yielding plants belongs to which of the following plant families.

- (1) Liliaceae, Poaceae
(2) Malvaceae, Fabaceae
(3) Asteraceae, Brassicaceae
(4) Solanaceae, Graminae

BMP324

SOLANACEAE, ASTERACEAE, LILIACEAE, POACEAE

90. Pentamerous, actinomorphic flowers, bicarpellary ovary with oblique septa, and fruit a capsule or berry, are characteristic features of :-

(1) Asteraceae (2) Brassicaceae
(3) Solanaceae (4) Liliaceae

BMP112

91. *Aloe* and Garlic are the plants of:-

(1) Leguminosae (2) Asteraceae
(3) Liliaceae (4) Poaceae

BMP055

92. Replum is:-

(1) False placenta (2) False septum
(3) False ovule (4) False thalamus

BMP057

93. Inflorescence in Liliaceae is generally: -

(1) Racemose
(2) Solitary/Cymose
(3) Catkin
(4) Hypanthodium

BMP063

94. Inflorescence in Solanaceae is :-

(1) Racemose (2) Cymose
(3) Capitulum (4) Hypanthodium

BMP072

95. *Lycopersicon esculentum* (Tomato) belongs to family :-

(1) Solanaceae (2) Malvaceae
(3) Cruciferae (4) Cucurbitaceae

BMP073

96. *Atropa belladonna*, an important medicinal plant is of the family :-

(1) Liliaceae (2) Cucurbitaceae
(3) Cruciferae (4) Solanaceae

BMP074

97. 'Simla mirch', chillies and potato belong to family :-

(1) Solanaceae (2) Compositae
(3) Gramineae (4) Cruciferae

BMP075

98. *Nicotiana*, *Petunia* belong to :-

(1) Malvaceae (2) Liliaceae
(3) Solanaceae (4) Cruciferae

BMP076

99. The drug 'Belladonna' is obtained from :-

(1) *Atropa* (2) *Rauwolfia*
(3) *Solanum* (4) *Capsicum*

BMP077

100. Floral formula $\oplus \frac{\text{♂}}{\text{♀}} K_{(5)} \overline{C}_{(5)} A_5 \underline{G}_{(2)}$ is shown by :-

(1) Onion, Garlic (2) Pea, Bean
(3) Tomato, Brinjal (4) All of the above

BMP089

101. In which of the families the stamens are in two whorls and epiphyllous :-

(1) Brassicaceae (2) Solanaceae
(3) Liliaceae (4) Fabaceae

BMP091

102. A distinct monocot character shown by the flowers of Liliaceae is :-

(1) Hypogynous flowers
(2) Actinomorphic flowers
(3) Trimerous flowers
(4) Bisexual flowers

BMP092

103. *Allium cepa* (onion) belongs to the family :-

(1) Solanaceae (2) Liliaceae
(3) Cruciferae (4) Brassicaceae

BMP093

104. Which of the family possess perianth of six tepals:-

(1) Fabaceae (2) Solanaceae
(3) Liliaceae (4) Brassicaceae

BMP094

105. *Colchicum autumnale* belongs to :-

- (1) Leguminosae (2) Cruciferae
(3) Liliaceae (4) Malvaceae

BMP095

106. *Smilax* and *Gloriosa* belong to :-

- (1) Liliaceae (2) Solanaceae
(3) Fabaceae (4) Cruciferae

BMP096

107. In which of the following family, perianth and trimerous flowers are found :-

- (1) Solanaceae (2) Cruciferae
(3) Liliaceae (4) Fabaceae

BMP101

108. $Br^{\oplus} \frac{\text{♂}}{\text{♀}} P_{(3+3)} A_{3+3} \underline{G}_{(3)}$ floral formula belongs:- to which family :-

- (1) Leguminosae (2) Liliaceae
(3) Labiatae (4) Graminae

BMP103

109. The new name for family compositae is

- (1) Asteraceae (2) Brassicaceae
(3) Cruciferae (4) Poaceae

BMP315

110. The following diagram is :-



- (1) Ray floret (2) Disc floret
(3) Neuter floret (4) All of the above

BMP316

111. The odd one among following members of family Asteraceae is

- (1) *Helianthus annuus* (2) *Chrysanthemum*
(3) *Allium cepa* (4) *Tagetes*

BMP318

112. Other than Liliaceae, which of the following family shows perianth :-

- (1) Poaceae (2) Fabaceae
(3) Asteraceae (4) Malvaceae

BMP319

113. Lodicules are reduced perianth in

- (1) Green (2) Sunflower
(3) Rice (4) Tulip

BMP320

114. Source of common sugar is :-

- (1) Maize (2) Wheat
(3) Sugar cane (4) Rice

BMP321

115. Feathery stigma is found in

- (1) Poaceae – Wheat
(2) Brassicaceae – Mustard
(3) Asteraceae – Sunflower
(4) Malvaceae – Chinrose

BMP322

Exercise-I (Conceptual Questions)											ANSWER KEY				
Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	1	2	2	4	4	1	3	3	1	2	3	4	3	1
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	3	1	1	4	2	3	2	2	1	3	2	1	1	4	3
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	3	4	2	4	1	2	4	3	2	1	4	2	4	2	3
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	4	3	2	1	3	1	1	3	4	4	2	3	2	4	3
Question	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Answer	1	2	4	2	4	1	1	1	1	1	3	3	1	3	3
Question	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Answer	3	3	2	2	1	1	1	1	4	4	1	2	4	2	3
Question	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Answer	3	2	2	2	1	4	1	3	1	3	3	3	2	3	3
Question	106	107	108	109	110	111	112	113	114	115					
Answer	1	3	2	1	1	3	1	3	3	1					

Exercise - II (Previous Year Questions)

AIPMT/NEET

AIPMT 2014

1. Placenta and pericarp are both edible portions in:-
 (1) Apple (2) Banana
 (3) Tomato (4) Potato

BMP151

2. When the margins of sepals or petals overlap one another without any particular direction, the condition is termed as :-
 (1) Vexillary (2) Imbricate
 (3) Twisted (4) Valvate

BMP152

3. An example of edible underground stem is :
 (1) Carrot (2) Groundnut
 (3) Sweet potato (4) Potato

BMP153

4. An aggregate fruit is one which develops from:
 (1) Multicarpellary syncarpous gynoecium
 (2) Multicarpellary apocarpous gynoecium
 (3) Complete inflorescence
 (4) Multicarpellary superior ovary

BMP154

AIPMT 2015

5. Leaves become modified into spines in :-
 (1) Pea (2) Onion
 (3) Silk Cotton (4) *Opuntia*

BMP155

6. Perigynous flowers are found in :-
 (1) Cucumber (2) China rose
 (3) Rose (4) Guava

BMP156

7. In ginger vegetative propagation occurs through:
 (1) Offsets (2) Bulbils
 (3) Runners (4) Rhizome

BMP157

8. $\oplus \text{ } \overline{\text{K}}_{(5)} \text{ } \overline{\text{C}}_{(5)} \text{ } \overline{\text{A}}_5 \text{ } \underline{\text{G}}_{(2)}$ is the floral formula of :-
 (1) *Sesbania* (2) *Petunia*
 (3) *Brassica* (4) *Allium*

BMP158

9. Keel is the characteristic feature of flower of:-
 (1) *Indigofera* (2) *Aloe*
 (3) Tomato (4) Tulip

BMP159

Re-AIPMT 2015

10. Axile placentation is present in :
 (1) *Argemone* (2) *Dianthus*
 (3) Lemon (4) Pea
- BMP160**
11. Among china rose, mustard, brinjal, potato, guava, cucumber, onion and tulip, how many plants have superior ovary?
 (1) Four (2) Five
 (3) Six (4) Three

BMP161

12. Which one of the following fruits is parthenocarpic?
 (1) Banana (2) Brinjal
 (3) Apple (4) Jackfruit

BMP162

13. Roots play insignificant role in absorption of water in :-
 (1) Wheat (2) Sunflower
 (3) *Pistia* (4) Pea

BMP163

NEET-I 2016

14. The standard petal of a papilionaceous corolla is also called :-

(1) Carina (2) Pappus
(3) Vexillum (4) Corona

BMP164

15. Tricarpellary syncarpous gynoecium is found in flowers of :-

(1) Liliaceae (2) Solanaceae
(3) Fabaceae (4) Poaceae

BMP165

16. Which of the following is **not** a stem modification?

(1) Pitcher of *Nepenthes*
(2) Thorns of citrus
(3) Tendrils of cucumber
(4) Flattened structures of *Opuntia*

BMP166

17. Cotyledon of maize grain is called :-

(1) plumule (2) coleorhiza
(3) coleoptile (4) scutellum

BMP167

18. Stems modified into flat green organs performing the functions of leaves are known as :-

(1) Cladodes
(2) Phyllodes
(3) Phylloclades
(4) Scales

BMP168

NEET-II 2016

19. The term 'polyadelphous' is related to :-

(1) Corolla (2) Calyx
(3) Gynoecium (4) Androecium

BMP169

20. How many plants among *Indigofera*, *Sesbania*, *Salvia*, *Allium*, *Aloe*, mustard, groundnut, radish, gram and turnip have stamens with different lengths in their flowers ?

(1) Five (2) Six
(3) Three (4) Four

BMP170

21. Radial symmetry is found in the flowers of:-

(1) *Pisum* (2) *Cassia*
(3) *Brassica* (4) *Trifolium*

BMP171

22. Free-central placentation is found in :-

(1) *Brassica* (2) *Citrus*
(3) *Dianthus* (4) *Argemone*

BMP172

NEET (UG) 2017

23. Coconut fruit is a :-

(1) Berry (2) Nut
(3) Capsule (4) Drupe

BMP173

24. In *Bougainvillea* thorns are the modifications of :-

(1) Adventitious root (2) Stem
(3) Leaf (4) Stipules

BMP174

25. Root hairs develop from the region of :-

(1) Elongation
(2) root cap
(3) Meristematic activity
(4) Maturation

BMP175

26. The morphological nature of the edible part of coconut is:-

(1) Cotyledon (2) Endosperm
(3) Pericarp (4) Perisperm

BMP176

NEET (UG) 2018

27. Offsets are produced by:-
 (1) Meiotic divisions (2) Mitotic divisions
 (3) Parthenocarpy (4) Parthenogenesis

BMP177

28. Pneumatophores occur in :-
 (1) Halophytes
 (2) Free-floating hydrophytes
 (3) Carnivorous plants
 (4) Submerged hydrophytes

BMP178

29. Sweet potato is a modified :-
 (1) Stem
 (2) Adventitious root
 (3) Tap root
 (4) Rhizome

BMP179

NEET (UG) 2019

30. Placentation, in which ovules develop on the inner wall of the ovary or in peripheral part, is:
 (1) Basal (2) Axile
 (3) Parietal (4) Free central

BMP180

NEET (UG) 2019 (Odisha)

31. Which of the following shows whorled phyllotaxy ?
 (1) Mustard (2) China rose
 (3) *Alstonia* (4) *Calotropis*

BMP181

32. Bicarpellary ovary with obliquely placed septum is seen in :-
 (1) *Brassica* (2) *Aloe*
 (3) *Solanum* (4) *Sesbania*

BMP182

33. Match the placental types (column-I) with their examples (column-II):-

Column-I	Column-II
(a) Basal	(i) Mustard
(b) Axile	(ii) China rose
(c) Parietal	(iii) <i>Dianthus</i>
(d) Free central	(iv) Sunflower

Choose the correct answer from the following:
options:

- (1) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
 (2) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
 (3) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)
 (4) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)

BMP183

NEET (UG) 2020

34. Ray florets have :-
 (1) Half inferior ovary
 (2) Inferior ovary
 (3) Superior ovary
 (4) Hypogynous ovary

BMP184

35. The roots that originate from the base of the stem are :-
 (1) Lateral roots (2) Fibrous roots
 (3) Primary roots (4) Prop roots

BMP185

36. The ovary is half inferior in :-
 (1) Plum (2) Brinjal
 (3) Mustard (4) Sunflower

BMP186

NEET (UG) 2020 (COVID-19)

37. In some plants thalamus contributes to fruit formation. Such fruits are termed as :-
 (1) False fruits
 (2) Aggregate fruits
 (3) True fruits
 (4) Parthenocarpic fruit

BMP187

38. Correct position of floral parts over thalamus in mustard plant is :-

- (1) Gynoecium occupies the highest position, while the other parts are situated below it.
- (2) Margin of the thalamus grows upward, enclosing the ovary completely, and other parts arise below the ovary.
- (3) Gynoecium is present in the centre and other parts cover it partially.
- (4) Gynoecium is situated in the centre, and other parts of the flower are located at the rim of the thalamus, at the same level.

BMP188

39. Which of the following is the correct floral formula of Liliaceae ?

- (1) $\% \text{ } \overline{\text{C}}_{1+2+(2)} \text{ } \overline{\text{A}}_{(9)+1} \text{ } \underline{\text{G}}_1$
- (2) $\oplus \text{ } \overline{\text{C}}_{(5)} \text{ } \overline{\text{A}}_{(5)} \text{ } \underline{\text{G}}_{(2)}$
- (3) $\text{Br} \oplus \text{ } \overline{\text{P}}_{(3+3)} \text{ } \overline{\text{A}}_{3+3} \text{ } \underline{\text{G}}_{(3)}$
- (4) $\oplus \text{ } \overline{\text{K}}_{(5)} \text{ } \overline{\text{C}}_{(5)} \text{ } \overline{\text{A}}_5 \text{ } \underline{\text{G}}_{(2)}$

BMP189

40. Vegetative propagule in *Agave* is termed as:-

- (1) Rhizome
- (2) Bulbil
- (3) Offset
- (4) Eye

BMP190

41. Identify the correct features of Mango and Coconut fruits:-

- (i) In both fruit is a drupe
- (ii) Endocarp is edible in both
- (iii) Mesocarp in Coconut is fibrous, and in Mango it is fleshy
- (iv) In both, fruit develops from monocarpellary ovary

Select the correct option from below :

- (1) (i), (iii) and (iv) only
- (2) (i), (ii) and (iii) only
- (3) (i) and (iv) only
- (4) (i) and (ii) only

BMP191

NEET (UG) 2021

42. Diadelphous stamens are found in:-

- (1) China rose
- (2) *Citrus*
- (3) Pea
- (4) China rose and *Citrus*

BMP192

43. Match Column - I with Column - II:-

Column - I

Column - II

- (a) $\% \text{ } \overline{\text{C}}_{(5)} \text{ } \overline{\text{C}}_{1+2+(2)} \text{ } \overline{\text{A}}_{(9)+1} \text{ } \underline{\text{G}}_1$ (i) Brassicaceae
- (b) $\oplus \text{ } \overline{\text{C}}_{(5)} \text{ } \overline{\text{C}}_{(5)} \text{ } \overline{\text{A}}_5 \text{ } \underline{\text{G}}_2$ (ii) Liliaceae
- (c) $\oplus \text{ } \overline{\text{P}}_{(3+3)} \text{ } \overline{\text{A}}_{3+3} \text{ } \underline{\text{G}}_{(3)}$ (iii) Fabaceae
- (d) $\oplus \text{ } \overline{\text{K}}_{2+2} \text{ } \overline{\text{C}}_4 \text{ } \overline{\text{A}}_{2+4} \text{ } \underline{\text{G}}_{(2)}$ (iv) Solanaceae

Select the **correct** answer from the options given below.

- | (a) | (b) | (c) | (d) |
|-----------|-------|-------|-------|
| (1) (iii) | (iv) | (ii) | (i) |
| (2) (i) | (ii) | (iii) | (iv) |
| (3) (ii) | (iii) | (iv) | (i) |
| (4) (iv) | (ii) | (i) | (iii) |

BMP193

Re-NEET (UG) 2021

44. Vegetative propagation in mint and jasmine occurs by

- (1) Runner
- (2) Sucker
- (3) Stolon
- (4) Offset

BMP293

45. The following figure represents the root system of



- (1) *Triticum* (2) Mango
(3) Banyan (4) *Brassica*

BMP294

46. Among mustard, mulaithi, watermelon, soyabean, pumpkin, ashwagandha, *Asparagus*, brinjal, *Allium*, *Trifolium*, Rose, *Indigofera*, bitter gourd, plum, cucumber, arhar, moong and peach, how many plants have hypogynous flowers ?

- (1) Three (2) Ten
(3) Four (4) Eleven

BMP295

47. Pinnate, compound leaves with reticulate venation are present in

- (1) Neem (2) Mango
(3) *Alstonia* (4) Silk cotton

BMP296

NEET (UG) 2022

48. Identify the **correct** set of statements:-

- (a) The leaflets are modified into pointed hard thorns in *Citrus* and *Bougainvillea*
(b) Axillary buds form slender and spirally coiled tendrils in cucumber and pumpkin
(c) Stem is flattened and fleshy in *Opuntia* and modified to perform the function of leaves
(d) *Rhizophora* shows vertically upward growing roots that help to get oxygen for respiration

- (e) Subaerially growing stems in grasses and strawberry help in vegetative propagation

Choose the **correct answer** from the options given below:

- (1) (a) and (d) Only
(2) (b), (c), (d) and (e) Only
(3) (a), (b), (d) and (e) Only
(4) (b) and (c) Only

BMP194

49. The flowers are Zygomorphic in:-

- (a) Mustard (b) Gulmohaur
(c) *Cassia* (d) *Datura*
(e) Chilly

Choose the **correct answer** from the options given below:

- (1) (b), (c) Only (2) (d), (e) Only
(3) (c), (d), (e) Only (4) (a), (b), (c) Only

BMP195

50. Which one of the following plants shows vexillary aestivation and diadelphous stamens ?

- (1) *Pisum sativum*
(2) *Allium cepa*
(3) *Solanum nigrum*
(4) *Colchicum autumnale*

BMP196

NEET (UG) 2022 (OVERSEAS)

51. Identify the **correct** statements related to the androecium in the flower.

- (a) The sterile stamens are called staminodes.
(b) When stamens are attached to petals they are called epipetalous.
(c) Monoadelphous is seen in China-rose.
(d) Polyadelphous is seen in Pea.
(e) Variation in the length of anther filaments is seen in Mustard.

Choose the **correct** answer from the options given below :

- (1) (a), (b), (c) and (e) only
 (2) (a), (b) and (c) only
 (3) (b), (c) and (d) only
 (4) (a), (c), (d) and (e) only

BMP297

52. Which of the following plants possesses the placentation of ovules borne on central axis with no septa?

- (1) Pea (2) China-rose
 (3) Primrose (4) Lemon

BMP298

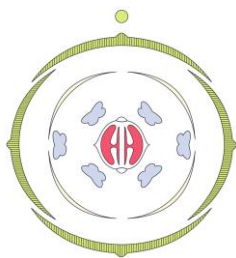
53. Choose the mismatched pair of leaf character with its example :

- (1) Alternate phyllotaxy - China-rose
 (2) Leaf tendril - Pea
 (3) Opposite phyllotaxy - *Calotropis*
 (4) Palmately compound - *Alstonia*

BMP299

Re-NEET (UG) 2022

54. The Floral Diagram represents which one of the following families ?



- (1) Fabaceae (2) Brassicaceae
 (3) Solanaceae (4) Liliaceae

BMP197

55. Match List - I with List - II :-

	List I		List II
a.	Imbricate	i.	<i>Calotropis</i>
b.	Valvate	ii.	<i>Cassia</i>
c.	Vexillary	iii.	Cotton
d.	Twisted	iv.	Bean

Choose the **correct** answer from the options given below :-

- (1) (a) - (ii), (b) - (i), (c) - (iii), (d) - (iv)
 (2) (a) - (ii), (b) - (i), (c) - (iv), (d) - (iii)
 (3) (a) - (ii), (b) - (iv), (c) - (iii), (d) - (i)
 (4) (a) - (i), (b) - (iii), (c) - (iv), (d) - (ii)

BMP198

NEET (UG) 2023

56. Family Fabaceae differs from Solanaceae and Liliaceae. With respect to the stamens, pick out the characteristics specific to family. Fabaceae but not found in Solanaceae or Liliaceae.

- (1) Polyadelphous and epipetalous stamens
 (2) Monoadelphous and Monothealous anthers
 (3) Epiphyllous and Dithealous anthers
 (4) Diadelphous and Dithealous anthers

BMP300

57. Axile placentation is observed in

- (1) China rose, Beans and Lupin
 (2) Tomato, Dianthus and Pea
 (3) China rose, Petunia and Lemon
 (4) Mustard, Cucumber and Primrose

BMP301

NEET (UG) 2023 (Manipur)

58. In *Calotropis*, aestivation is :

- (1) Valvate (2) Vexillary
 (3) Imbricate (4) Twisted

BMP302

59. In a pea flower, five petals are arranged in a specialized manner with one posterior, two lateral and two anterior. These are named as _____, _____ and _____ respectively.

- (1) Keel, Wings and Standard
 (2) Vexillum, Keel and Standard
 (3) Keel, Standard and Carina
 (4) Standard, Wings and Keel

BMP303

60. Match the following :-

Type of flower		Example	
(A)	Zygomorphic	(I)	Mustard
(B)	Hypogynous	(II)	Plum
(C)	Perigynous	(III)	Cassia
(D)	Epigynous	(IV)	Cucumber

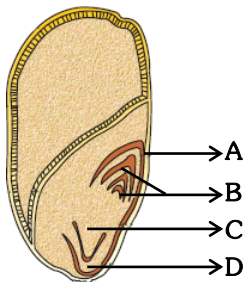
Select the **correct** option :-

- (1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
 (2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
 (3) (A)-(IV), (B)-(I), (C)-(III), (D)-(II)
 (4) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

BMP304

NEET (UG) 2024

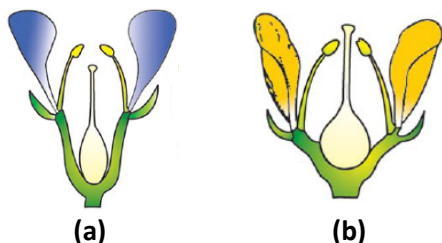
61. Identify the part of the seed from the given figure which is destined to form root when the seed germinates.



- (1) A (2) B (3) C (4) D

BMP353

62. Identify the type of flowers based on the position of calyx, corolla and androecium with respect to the ovary from the given figures (a) and (b).



- (1) (a)–Epigynous; (b)–Hypogynous
 (2) (a)–Hypogynous; (b)–Epigynous
 (3) (a)–Perigynous; (b)–Epigynous
 (4) (a)–Perigynous; (b)–Perigynous

BMP354

63. Which of the following is an example of actinomorphic flower ?

- (1) *Datura*
 (2) *Cassia*
 (3) *Pisum*
 (4) *Sesbania*

BMP355

64. Match List-I with List-II.

List I (Types of Stamens)		List II (Example)	
A.	Monadelphous	I.	Citrus
B.	Diadelphous	II.	Pea
C.	Polyadelphous	III.	Lily
D.	Epiphyllous	IV.	China-rose

Choose the correct answer from the options given below :-

- (1) A–IV, B–II, C–I, D–III
 (2) A–IV, B–I, C–II, D–III
 (3) A–I, B–II, C–IV, D–III
 (4) A–III, B–I, C–IV, D–II

BMP356

65. Match List-I with List-II.

	List I		List II
A.	Rose	I.	Twisted aestivation
B.	Pea	II.	Perigynous flower
C.	Cotton	III.	Drupe
D.	Mango	IV.	Marginal placentation

Choose the **correct** answer from the options given below :-

- (1) A-II, B-IV, C-I, D-III
 (2) A-I, B-II, C-III, D-IV
 (3) A-IV, B-III, C-II, D-I
 (4) A-II, B-III, C-IV, D-I

BMP357

Re-NEET (UG) 2024

66. Match List-I with List-II.

List I		List II	
A.	Vexillary aestivation	I.	Brinjal
B.	Epipetalous stamens	II.	Peach
C.	Epiphyllous stamens	III.	Pea
D.	Perigynous flower	IV.	Lily

Choose the **correct** answer from the options given below :-

- (1) A-III, B-I, C-IV, D-II
 (2) A-III, B-IV, C-I, D-II
 (3) A-III, B-II, C-I, D-IV
 (4) A-II, B-I, C-IV, D-III

BMP358

67. Match List-I with List-II.

List I		List II	
A.	China rose	I.	Free central
B.	Mustard	II.	Basal
C.	Primrose	III.	Axile
D.	Marigold	IV.	Parietal

Choose the **correct** answer from the options given below

- (1) A-IV, B-III, C-II, D-I
 (2) A-II, B-III, C-IV, D-I
 (3) A-III, B-IV, C-I, D-II
 (4) A-III, B-IV, C-II, D-I

BMP359

68. Which of the following examples show monocarpellary, unilocular ovary with many ovules ?

- A. *Sesbania*
 B. Brinjal
 C. *Indigofera*
 D. Tobacco
 E. *Asparagus*

Choose the **correct** answer from the options given below :-

- (1) B and E only (2) C, D and E only
 (3) A, B and D only (4) A and C only

BMP360

Exercise-II (Previous Year Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	2	4	2	4	3	4	2	1	3	3	1	3	3	1
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	1	4	3	4	4	3	3	4	2	4	2	2	1	2	3
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	3	3	3	2	2	1	1	1	3	2	1	3	1	3	1
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	4	1	2	1	1	1	3	4	2	2	4	3	1	4	4
Question	61	62	63	64	65	66	67	68							
Answer	3	4	1	1	1	1	3	4							

Exercise - III

Master Your Understanding

(A) NCERT BASED QUESTIONS

1. Roots developing from plant parts other than radicle are :-
 (1) Tap roots (2) Adventitious roots
 (3) Both (1) & (2) (4) Conical roots
BMP199
2. Prop roots are :-
 (1) Tap roots (2) Adventitious roots
 (3) Secondary roots (4) All
BMP200
3. A monocot can be distinguished from a dicot by:
 (1) Aestivation (2) Venation
 (3) Both (1) & (2) (4) Placentation
BMP201
4. In Racemose, flowers are arranged in :-
 (1) Acropetal order (2) Centrifugal order
 (3) Both (1) & (2) (4) Basipetal order
BMP202
5. Axis of inflorescence is :-
 (1) Pedicel (2) Peduncle
 (3) Petiole (4) All
BMP203
6. Stilt roots occur in :-
 (1) Groundnut (2) Rice
 (3) Sugarcane (4) Wheat
BMP204
7. Function of stem is to :-
 (1) Bear leaves and branches
 (2) Conduction of water and minerals
 (3) Conduction and storage of food
 (4) All
BMP205

8. Arrangement of leaves on a stem or branch is:
 (1) Venation (2) Vernation
 (3) Inflorescence (4) Phyllotaxy
BMP206
9. A slender lateral branch arises from the base of the main axis and after growing aerially for some time arch downwards to touch the ground. Such type of modification is :-
 (1) Runner (2) Sucker
 (3) Stolon (4) Offset
BMP207
10. A lateral branch with short internodes and each node bearing a rosette of leaves and a tuft of roots in aquatic plants, such type of modification is :-
 (1) Runner (2) Stolon
 (3) Sucker (4) Offset
BMP208
11. Lateral branches originate from the basal and underground portion of the main stem, grow horizontally beneath the soil and then comes out obliquely upward giving rise to leafy shoots, such type of modification is
 (1) Runner (2) Stolon
 (3) Sucker (4) Offset
BMP209
12. In some leguminous plants the leaf base may become swollen, it is called :-
 (1) Pulvinus (2) Lamina
 (3) Leaf margin (4) Stipule
BMP210

- 13.** When the veins run parallel to each other within a lamina, the venation is termed as:-
 (1) Parallel (2) Reticulate
 (3) Both (1) and (2) (4) Pinnate
BMP211
- 14.** If the leaflets are present on a common axis, the rachis, leaf is called :-
 (1) Palmately compound leaf
 (2) Pinnately compound leaf
 (3) Simple leaf
 (4) Trifoliate leaf
BMP212
- 15.** If the leaflets are attached at the tip of petiole, leaf is called :-
 (1) Pinnately compound leaf
 (2) Palmately compound leaf
 (3) Simple leaf
 (4) Unipinnate leaf
BMP213
- 16.** When single leaf arises at each node then phyllotaxy is called :-
 (1) Alternate (2) Opposite
 (3) Whorled (4) Pinnate
BMP214
- 17.** Opposite phyllotaxy is present in :-
 (1) Mustard (2) Guava
 (3) China rose (4) *Alstonia*
BMP215
- 18.** Arrangement of sepals and petals in floral bud with respect of other members of same whorl is known as :-
 (1) Venation (2) Aestivation
 (3) Cohesion (4) Adhesion
BMP216
- 19.** Didynamous condition is related to :-
 (1) Androecium (2) Inflorescence
 (3) Gynoecium (4) All
BMP217
- 20.** Stamens attached to petals are :-
 (1) Epipetalous (2) Epiphyllous
 (3) Episepalous (4) All
BMP218
- 21.** Androecium is the whorl of :-
 (1) Anthers (2) Stamens
 (3) Filaments (4) Tepals
BMP219
- 22.** Syncarpous gynoecium has two or more :-
 (1) Free carpels (2) Fused carpels
 (3) Free Ovaries (4) All
BMP220
- 23.** A typical flower with superior ovary and other floral parts inferior is called :-
 (1) Polygamous (2) Hypogynous
 (3) Perigynous (4) Epigynous
BMP221
- 24.** Arrangement of ovules within the ovary is known as:-
 (1) Aestivation (2) Placentation
 (3) Both (1) & (2) (4) Cohesion
BMP222
- 25.** When gynoecium is present in the topmost position of thalamus, the ovary is known as:-
 (1) Inferior (2) Half inferior
 (3) Half superior (4) Superior
BMP223
- 26.** Drupe contains :-
 (1) Stony endocarp (2) Stony mesocarp
 (3) Edible epicarp (4) Edible endocarp
BMP224
- 27.** Plants which yield pulses belong to family :-
 (1) Fabaceae (2) Liliaceae
 (3) Brassicaceae (4) Solanaceae
BMP226

28. Edible portion of Mango is :-
 (1) Epicarp (2) Endocarp
 (3) Mesocarp (4) Placenta
BMP227
29. Fibrous coir is obtained from which part of the Coconut ?
 (1) Epicarp (2) Mesocarp
 (3) Endocarp (4) Seed coat
BMP228
30. A characteristic feature of Ovary of Mustard is:
 (1) Presence of false septum
 (2) Axile placentation
 (3) Epigynous
 (4) All of the above
BMP229
31. In Cacti the spines are modification of :-
 (1) Leaf (2) Branch
 (3) Epidermis (4) Axillary bud
BMP230
32. Placentation in Solanaceae is :-
 (1) Parietal (2) Marginal
 (3) Axile (4) Basal
BMP231
33. Coconut is which type of fruit ?
 (1) Drupe (2) Cypsela
 (3) Berry (4) Pome
BMP232
34. Arrangement of flowers on the floral axis is termed as inflorescence. Regarding to inflorescence which of the following statement is not correct :-
 (1) In racemose—main axis is continues to grow
 (2) In cymose—main axis terminates into flower
 (3) In racemose – flowers are in basipetal succession
 (4) In cymose – growth of main axis is limited
BMP233

35. Regarding to symmetry of flower which of the following plant is odd:-
 (1) Pea (2) Mustard
 (3) *Datura* (4) Chilli
BMP234
36. Find out the wrong match:-
 (1) Actinomorphic – *Datura*
 (2) Radial symmetry – Mustard
 (3) Zygomorphic – Bean
 (4) Bilateral Symmetry – Chilli
BMP235
37. In which of the following plant flower can not be divided into two similar halves by any vertical plane:-
 (1) Mustard (2) *Cassia*
 (3) *Canna* (4) *Datura*
BMP236
38. In which of the following plant gynoecium occupies the highest position while the other parts situated below it?
 (1) Brinjal (2) Plum
 (3) Rose (4) Guava
BMP237
39. Match the following and select correct option:-
 (a) Hypogynous (i) Lily, Onion
 (b) Perigynous (ii) Cucumber, Ray florets of sunflower
 (c) Epigynous (iii) Plum, Peach
 (d) Perianth (iv) China rose, Brinjal
 (1) a-(iv), b-(iii), c-(ii), d-(i)
 (2) a-(iv), b-(ii), c-(iii), d-(i)
 (3) a-(iii), b-(ii), c-(iv), d-(i)
 (4) a-(iii), b-(iv), c-(ii), d-(i)
BMP238

40. Calyx is the outermost accessory whorl of flower. What is the function of calyx?

- (1) Help in pollination
- (2) Help in protection of flower during bud condition
- (3) Help in fertilization
- (4) Help in seed germination

BMP239

41. Match the following with respect to aestivation in petals and select correct option:-

- | | |
|---------------|------------------------|
| (a) Valvate | (i) China rose |
| (b) Twisted | (ii) <i>Calotropis</i> |
| (c) Imbricate | (iii) Pea |
| (d) Vexillary | (iv) <i>Cassia</i> |

- (1) a-(ii), b-(i), c-(iv), d-(iii)
- (2) a-(ii), b-(iii), c-(iv), d-(i)
- (3) a-(i), b-(ii), c-(iii), d-(iv)
- (4) a-(iv), b-(iii), c-(ii), d-(i)

BMP240

42. Match the following:-

- | | |
|--------------------------|-------------------|
| (a) Epiphyllous stamen | (i) <i>Citrus</i> |
| (b) Monoadelphous stamen | (ii) Pea |
| (c) Diadelphous stamen | (iii) China rose |
| (d) Polyadelphous stamen | (iv) Lily |

- (1) a-(ii), b-(i), c-(iii), d-(iv)
- (2) a-(i), b-(ii), c-(iii), d-(iv)
- (3) a-(iv), b-(iii), c-(i), d-(ii)
- (4) a-(iv), b-(iii), c-(ii), d-(i)

BMP241

43. In which type of placentation, ovules are present on central axis:-

- | | |
|------------------|--------------------|
| (1) Axile | (2) Parietal |
| (3) Free central | (4) Both (1) & (3) |

BMP242

44. The floral formula, $\text{Br} \oplus \text{P}_{(3+3)} \text{A}_{3+3} \underline{\text{G}}_{(3)}$ belongs to :-

- | | |
|-----------|-------------|
| (1) Onion | (2) Makoi |
| (3) Pea | (4) Mustard |

BMP243

45. Diadelphous stamens are found in :-

- (1) Liliaceae (Onion)
- (2) Fabaceae (Pea)
- (3) Poaceae (Wheat)
- (4) Malvaceae (China rose)

BMP244

46. Pneumatophores take part in :-

- | | |
|-----------------|------------------|
| (1) Excretion | (2) Feeding |
| (3) Respiration | (4) Reproduction |

BMP245

47. Gram belongs to the family :-

- | | |
|---------------|----------------|
| (1) Gramineae | (2) Fabaceae |
| (3) Liliaceae | (4) Solanaceae |

BMP246

48. Ginger is :-

- | | |
|----------|-----------|
| (1) Stem | (2) Root |
| (3) Leaf | (4) Fruit |

BMP247

49. Inflorescence in members of papilionideae is:-

- (1) Racemose
- (2) Cymose
- (3) Cyathium
- (4) Hypanthodium

BMP248

50. *Sesbania* belongs to :-

- | | |
|----------------|----------------|
| (1) Liliaceae | (2) Fabaceae |
| (3) Solanaceae | (4) Cruciferae |

BMP249

51. Swollen placenta with oblique septum can be seen in:-

- | | |
|------------------|----------------|
| (1) Brassicaceae | (2) Fabaceae |
| (3) Liliaceae | (4) Solanaceae |

BMP251

52. Colchicine a mitotic poison can be obtained from a plant of:-

- (1) Brassicaceae (2) Fabaceae
(3) Solanaceae (4) Liliaceae

BMP252

53. Perianth condition is characteristic of:-

- (1) Brassicaceae (2) Fabaceae
(3) Solanaceae (4) Liliaceae

BMP253

54. Match the following and select correct option :-

- (a) Mustard (i) Liliaceae
(b) Mulaithi (ii) Solanaceae
(c) Ashwagandha (iii) Fabaceae
(d) Tulip (iv) Brassicaceae

(1) a-(iv), b-(iii), c-(ii), d-(i)

(2) a-(iv), b-(iii), c-(i), d-(ii)

(3) a-(iii), b-(iv), c-(ii), d-(i)

(4) a-(i), b-(ii), c-(iii), d-(iv)

BMP254

(B) ANALYTICAL QUESTIONS

55. Which is correct pair for edible part :-

- (1) Tomato – Thalamus
(2) Mango – Cotyledons
(3) Guava – Endosperm
(4) Date palm – Pericarp

BMP256

56. Edible part of Banana :-

- (1) Epicarp
(2) Mesocarp and less developed endocarp
(3) Endocarp and less developed mesocarp
(4) Epicarp & mesocarp

BMP257

57. A small, dry, one-seeded fruit with its pericarp (fruit wall) fused with the seed-coat, developing from a monocarpellary gynoecium is called :-

- (1) Cypsela (2) Siliqua
(3) Caryopsis (4) Samara

BMP258

58. Flowers are zygomorphic in :-

- (1) Mustard & Chilli (2) Radish & Datura
(3) Lily & Canna (4) Candytuft & Pea

BMP259

59. Dye 'Neel' is obtained from:-

- (1) *Indigofera tinctoria*
(2) *Brassica oleracea*
(3) *Brassica rapa*
(4) *Capsella bursa pastoris*

BMP260

60. A floral formula represents :-

- (1) Plant symmetry
(2) Floral position
(3) Floral characters
(4) Floral functions

BMP261

61. Bicarpellary, syncarpous gynoecium with bilocular ovary, axile swollen placenta and oblique septum occurs in:-

- (1) Cruciferae (2) Solanaceae
(3) Cucurbitaceae (4) Liliaceae

BMP262

62. Colchicine is obtained from :-

- (1) *Atropa belladonna*
(2) *Colchicum autumnale*
(3) *Withania somnifera*
(4) *Nicotiana tabacum*

BMP263

63. The leguminous plants are important in agriculture because :-

- (1) They are disease resistant
(2) They require very little irrigation
(3) They help in nitrogen fixation
(4) Crops of legumes can be produced in a year

BMP266

64. In family fabaceae, 5 petals form a unique association, In which 3 different elements participate, these are standard (vexillum), Wings (alae) & Keel (carina). What is the number of these elements :-
 (1) 1, 2, 2 respectively
 (2) 2, 1, 2 respectively
 (3) 1, 1, 3 respectively
 (4) 2, 2, 1 respectively
BMP267
65. The ovules after fertilisation, develop into:-
 (1) Seeds (2) Fruits
 (3) Endosperm (4) Pericarp
BMP270
66. Seeds are endospermous in :-
 (1) Bean (2) Gram
 (3) Pea (4) Castor
BMP271
67. In which of the following membranous seed coat is fused with the Fruit wall ?
 (1) Pea (2) Gram
 (3) Maize (4) Castor
BMP272
68. Replum is present in the ovary of flower of:
 (1) Sun flower (2) Pea
 (3) Lemon (4) Mustard
BMP113
69. The fruit is chambered, developed from inferior ovary and has seeds with succulent testa in :-
 (1) Guava (2) Cucumber
 (3) Pomegranate (4) Orange
BMP114
70. Dry indehiscent single-seeded fruit formed from bicarpellary syncarpous inferior ovary is:
 (1) Berry (2) Cremocarp
 (3) Caryopsis (4) Cypsela
BMP116
71. An example of axile placentation is :-
 (1) Marigold (2) *Argemone*
 (3) *Dianthus* (4) Lemon
BMP119
72. Vegetative propagation in mint occurs by :-
 (1) Sucker (2) Runner
 (3) Offset (4) Rhizome
BMP120
73. The floral formula $\oplus \text{♀} K_{(5)} \overset{\curvearrowright}{C}_{(5)} A_5 \underline{G}_{(2)}$ is that of :-
 (1) Tobacco (2) Tulip
 (3) Soyabean (4) Sunnhemp
BMP121
74. In unilocular ovary with a single ovule the placentation is :-
 (1) Axile (2) Marginal
 (3) Basal (4) Free Central
BMP122
75. The technical term used for the androecium in a flower of China rose (*Hibiscus rosa-sinensis*) is :
 (1) Polyadelphous (2) Monadelphous
 (3) Diadelphous (4) Polyandrous
BMP123
76. Ovary is half-inferior in the flowers of:-
 (1) Cucumber (2) Guava
 (3) Plum (4) Brinjal
BMP124
77. Keel is characteristic of the flowers of:-
 (1) Bean (2) Gulmohur
 (3) *Cassia* (4) *Calotropis*
BMP125
78. Vegetative propagation in *Pistia* occurs by:-
 (1) Offset (2) Runner
 (3) Sucker (4) Stolon
BMP126

79. Which one of the following is a xerophytic plant in which the stem is modified into a flat, green and succulent structure ?

- (1) Casuarina (2) *Hydrilla*
(3) *Acacia* (4) *Opuntia*

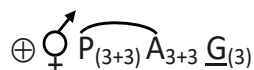
BMP127

80. Consider the following four statements A, B, C and D and select the right option for two correct statements :-

Statements :

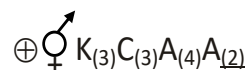
(A) In vexillary aestivation, the large posterior petal is called - *standard*, two lateral ones are *wings* and two small anterior petals are termed *keel*.

(B) The floral formula for Liliaceae is



(C) In pea flower the stamens are monoadelphous

(D) The floral formula for Solanaceae is



The correct statements are :-

- (1) (A) and (B) (2) (B) and (C)
(3) (C) and (D) (4) (A) and (C)

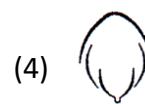
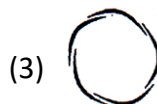
BMP128

81. The correct floral formula of soyabean is :-

- (1) $\% \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_{1+(2)+(2)} \overline{\text{A}}_{(9)+1} \underline{\text{G}}_1$
(2) $\% \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_{1+2+(2)} \overline{\text{A}}_{(9)+1} \underline{\text{G}}_1$
(3) $\% \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_{1+2+(2)} \overline{\text{A}}_{1+(9)} \underline{\text{G}}_1$
(4) $\% \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_{1+(2)+(2)} \overline{\text{A}}_{(9)+1} \underline{\text{G}}_1$

BMP129

82. Aestivation of petals in the flower of cotton is correctly shown in :-



BMP130

83. The "Eyes" of the potato tuber are :-

- (1) Root buds
(2) Flower buds
(3) Shoot buds
(4) Axillary buds

BMP131

84. Flowers are Zygomorphic in :-

- (1) Mustard (2) Gulmohur
(3) Tomato (4) *Datura*

BMP132

85. The ovary is half inferior in flowers of :-

- (1) Peach (2) Cucumber
(3) Cotton (4) Guava

BMP133

86. A drupe develops in :-

- (1) Mango (2) Wheat
(3) Pea (4) Tomato

BMP134

87. Which one of the following statements is correct?

- (1) In tomato, fruit is a capsule
(2) Seeds of orchids have oil-rich endosperm
(3) Placentation in *Primrose* is basal
(4) Flower of tulip is a modified shoot

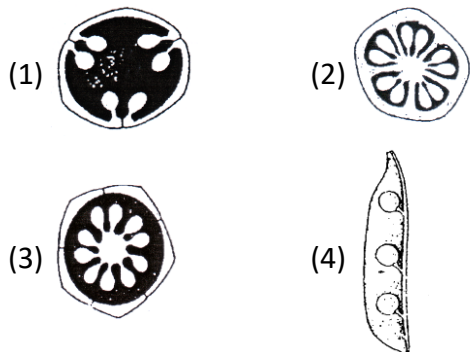
BMP135

88. The correct floral formula of chilli is :-

- (1) $\oplus \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_5 \overline{\text{A}}_5 \underline{\text{G}}_{(2)}$
(2) $\oplus \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_{(5)} \overline{\text{A}}_5 \underline{\text{G}}_{(2)}$
(3) $\oplus \text{ } \overline{\text{K}}_{(5)} \overline{\text{C}}_{(5)} \overline{\text{A}}_{(5)} \underline{\text{G}}_2$
(4) $\oplus \text{ } \overline{\text{K}}_5 \overline{\text{C}}_5 \overline{\text{A}}_{(5)} \underline{\text{G}}_2$

BMP136

89. Which one of the following diagrams represents the placentation in *Dianthus* ?



BMP137

90. Sweet potato is homologous to :-

- (1) Turnip (2) Potato
(3) *Colocasia* (4) Ginger

BMP138

91. Whorled, simple leaves with reticulate venation are present in :

- (1) *Alstonia* (2) *Calotropis*
(3) Mustard (4) China Rose

BMP139

92. Which one of the following pairs is wrongly matched while the remaining three are correct?

- (1) *Agave* - Bulbils
(2) Grass - Runner
(3) Water hyacinth - Runner
(4) *Bryophyllum* - Leaf buds

BMP140

93. Placentation in tomato and lemon is :-

- (1) Marginal (2) Axile
(3) Parietal (4) Free central

BMP141

94. Vexillary aestivation is characteristic of the family:

- (1) Solanaceae (2) Brassicaceae
(3) Fabaceae (4) Asteraceae

BMP142

95. Phyllode is present in :-

- (1) *Australian Acacia*
(2) *Opuntia*
(3) *Asparagus*
(4) *Euphorbia*

BMP143

96. How many plants in the list given below have composite fruits that develop from an inflorescence? Walnut, poppy, radish, fig, pineapple, apple, tomato, mulberry:-

- (1) Two (2) Three
(3) Four (4) Five

BMP144

97. Cymose inflorescence is present in :-

- (1) *Trifolium* (2) *Brassica*
(3) *Solanum* (4) *Sesbania*

BMP145

98. The coconut water and the edible part of coconut are equivalent to :-

- (1) Mesocarp
(2) Embryo
(3) Endosperm
(4) Endocarp

BMP146

99. The gynoecium consists of many free pistils in flowers of :-

- (1) *Papaver* (2) *Michelia*
(3) *Aloe* (4) Tomato

BMP147

100. How many plants in the list given below have marginal placentation ?

Mustard, Gram, Tulip, *Asparagus*, Arhar, Sun hemp, Chilli, Colchicine, Onion, Moong, Pea, Tobacco, Lupin

- (1) Six (2) Three
(3) Four (4) Five

BMP148

101. In china rose the flowers are :-

- (1) Zygomorphic, epigynous with twisted aestivation
- (2) Actinomorphic, hypogynous with twisted aestivation
- (3) Actinomorphic, epigynous with valvate aestivation
- (4) Zygomorphic, hypogynous with imbricate aestivation

BMP149

102. Among bitter gourd, mustard, brinjal, pumpkin china rose, lupin, cucumber, sunnhemp, gram, guava, bean, chilli, plum, *Petunia*, tomato, rose, *Withania*, potato, onion, *Aloe* and tulip how many plants have hypogynous flower?

- (1) Eighteen
- (2) Six
- (3) Ten
- (4) Fifteen

BMP150

Exercise - III

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	2	2	2	1	2	3	4	4	3	4	3	1	1	2	2
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	1	2	2	1	1	2	2	2	2	4	1	1	3	2	1
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	1	3	1	3	1	4	3	1	1	2	1	4	4	1	2
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	3	2	1	1	2	4	4	4	1	4	2	3	4	1	3
Question	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Answer	2	2	3	1	1	4	3	4	3	4	4	1	1	3	2
Question	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Answer	3	1	1	4	1	2	3	4	2	1	1	4	2	3	1
Question	91	92	93	94	95	96	97	98	99	100	101	102			
Answer	1	3	2	3	1	2	3	3	2	1	2	4			